

In the Claims

Please amend page 14, line 1 as follows:

Claims What is claimed is:

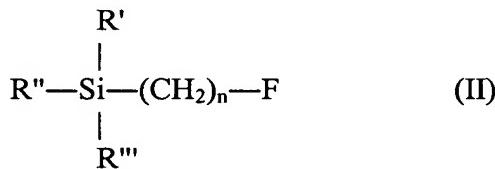
This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

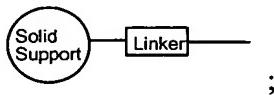
1. (Original) A process for preparation of a fluorohaloalkane of formula (I)



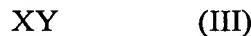
wherein X is halo and n is an integer of from 1 to 6; which comprises:
reaction of the corresponding organosilicon compound of formula (II):



wherein n is as defined for the compound of formula (I); and
R', R'', and R''' are independently selected from C₁₋₆ alkyl and C₁₋₆ haloalkyl; and
R''' may alternatively be the group:



with a compound of formula (III):

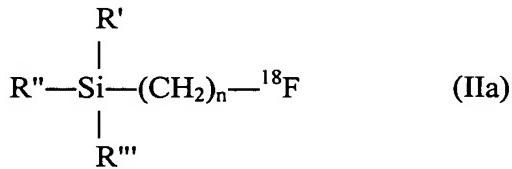


wherein X is as defined for the compound of formula (I) and Y is halo.

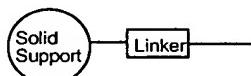
2. (Original) A process according to claim 1 for preparation of a [¹⁸F]fluorohaloalkane of formula (Ia)



wherein X is halo and n is an integer of from 1 to 6; which comprises:
reaction of the corresponding organosilicon compound of formula (IIa):



wherein n is as defined for the compound of formula (Ia); and
R', R'', and R''' are independently selected from C₁₋₆ alkyl and C₁₋₆ haloalkyl; and
R''' may alternatively be the group:



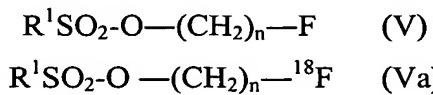
with a compound of formula (III):



wherein X is as defined for the compound of formula (Ia) and Y is halo.

3. (Currently amended) A process according to claim 1 or 2 which comprises the further step:

- (i) isolation of the compound of formula (I) or (Ia); and/or
- (ii) conversion of the compound of formula (I) or (Ia) to a corresponding fluoroalkylsulphonyl ester of formula (V) or (Va) respectively:



wherein n is as defined for the compound of formula (I) or (Ia), and R¹ is selected from C₁₋₆ alkyl, C₁₋₆ perfluoroalkyl, aryl, tolyl, perfluoroaryl, and perfluorotolyl.

4. (Currently amended) A process according to ~~any one of claims 1 to 3~~ claim 1 which comprises the further step:

(i) use of the resulting compound of formula (I) or (Ia) in the preparation of a fluoroalkyl ligand or radiotracer, such as a [¹⁸F]fluoroalkylated radioligand or [¹⁸F]-radiotracer.

5. (Original) A process according to claim 4 wherein the radioligand or radiotracer prepared is selected from:

2-(1,1-dicyanopropen-2-yl)-6-(2-[¹⁸F]-fluoroC₁₋₆alkyl)-methylamino)naphthalene,

3-(2'-[¹⁸F]fluoroC₁₋₆alkyl)spiperone,

[¹⁸F][2-fluoroC₁₋₆alkoxy-5-(5-trifluoromethyl-tetrazol-1-yl)-benzyl]-([2S,3S]-2-phenyl-piperidin-3-yl)-amine,

2-beta-carbomethoxy-3-beta-(4-iodophenyl)-8-(3-[¹⁸F]fluoroC₁₋₆alkyl)-nortropane,

[¹⁸F]fluoroC₁₋₆alkylflumazenil, and

[¹⁸F]fluoroC₁₋₆alkyl-choline.

6. (Currently amended) A process according to claim 4 ~~or 5~~ wherein the [¹⁸F]fluoroalkylated radioligand prepared is selected from:

2-(1,1-dicyanopropen-2-yl)-6-(2-[¹⁸F]-fluoroethyl)-methylamino)naphthalene,

3-(2'-[¹⁸F]fluoroethyl)spiperone,

[¹⁸F][2-fluoromethoxy-5-(5-trifluoromethyl-tetrazol-1-yl)-benzyl]-([2S,3S]-2-phenyl-piperidin-3-yl)-amine),

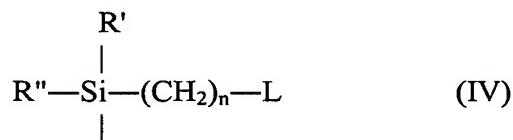
2-beta-carbomethoxy-3-beta-(4-iodophenyl)-8-(3-[¹⁸F]fluoropropyl)-nortropane,

[¹⁸F]fluoroethylflumazenil),

[¹⁸F]fluoromethyl-choline, and

[¹⁸F]fluoroethyl-choline).

7. (Currently amended) A process for the preparation of a compound of formula (II) or (IIa) as defined in claim 1 ~~or 2~~ which comprises reaction of a compound of formula (IV):

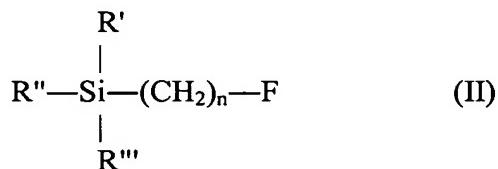


R'''

wherein n, R', R'', and R''' are as defined for the compound of formula (II) or (IIa), and L is a leaving group;

with a source of F⁻, preferably ¹⁸F⁻ in the presence of a phase transfer catalyst.

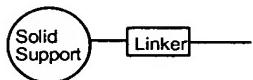
8. (Original) A compound of formula (II):



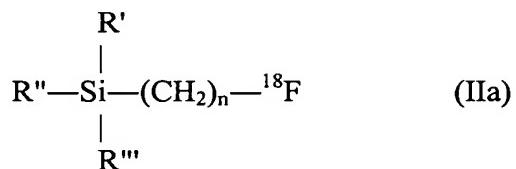
wherein n is an integer of from 1 to 6; and

R' and R''' are independently selected from C₁₋₆ alkyl and C₁₋₆ haloalkyl; and

R'' is the group:



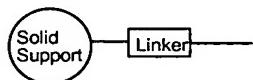
9. (Original) A compound of formula (IIa):



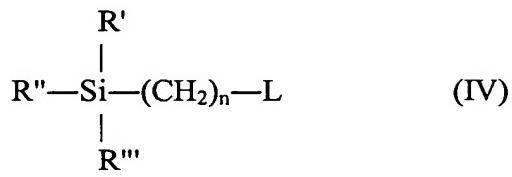
wherein n is an integer of from 1 to 6; and

R', R'', and R''' are independently selected from C₁₋₆ alkyl and C₁₋₆ haloalkyl; and

R'' may alternatively be the group:

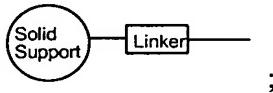


10. (Original) A compound of formula (IV):



wherein n is an integer of from 1 to 6;

R', R'', and R''' are independently selected from C₁₋₆ alkyl and C₁₋₆ haloalkyl; and R'' may alternatively be the group:



L is a group -OSO₂R² wherein R² is selected from C₁₋₆ alkyl, C₁₋₆ perfluoroalkyl, aryl, perfluoroaryl, tolyl, and perfluorotolyl;

provided that:

- when R'' is C₁₋₆ alkyl or C₁₋₆ haloalkyl, n is not 1; and
- when R'' is C₁₋₆ alkyl or C₁₋₆ haloalkyl and n is 2 to 6, L is not -OSO₂CH₃ or -OSO₂(*para*-methyl)phenyl.